

ABSTRACT OF THE DISCLOSURE

A die attach package for connecting a die or chip of die-down orientation to a printed circuit board in a die-up orientation. The package includes a substrate with leads that may be traces terminating in vias or that may be the leads of a lead frame. The traces
5 or the leads of the lead frame are modified such that they pass under the die when the die is attached. A flattened ball is attached to die contacts and a gold wire runs parallel to the die and then to a via on the substrate. The wire may be attached to the flattened ball by a wedge technique or other such known techniques. The die is attached to the substrate using a non-electrically-conductive material. This packaging enables a fabricator to
10 make die of one orientation type, die down, and use that die in a die-up package, thereby saving on fabrication costs.